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A Case Study of Womack Army Medical Center's Initiative to Compete with the Civilian Sector for Obstetric Patient Market Share

A Graduate Management Project Submitted to the Program Director in Candidacy for the Degree of Master's in Health Administration

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The National Defense Authorization Act for fiscal year 2002 eliminated the requirement for a TRICARE Standard patient to obtain a nonavailability statement to receive maternity care outside the military treatment facility (MTF). In effect, then, this law gives maternity patients the right to choose to receive their obstetrical care anywhere they choose, whether it be from a military or a civilian healthcare provider. The TRICARE Management Activity will pay the claims if the patient chooses a civilian provider, and the workload will be lost to the MTF. A private consulting firm studied the potential impact, and found that up to 50% of future OB patients might abandon Womack Army Medical Center (WAMC) (KPMG Consulting Site Visit Report, 2002). In order to counteract the enormous impact this would have on the MTF, WAMC initiated a project to upgrade and enhance its OB services so that it could directly compete with civilian providers to retain these patients. Currently the OB initiative is underway with a price tag of over $4 million. Major product lines or services that WAMC is improving include the addition of ultrasound machines, and ensuring continuity of care with a single provider throughout the patients pregnancy.

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Abstract

The National Defense Authorization Act for fiscal year 2002 eliminated the requirement for a TRICARE Standard patient to obtain a nonavailability statement to receive maternity care outside the military treatment facility (MTF). In effect, then, this law gives maternity patients the right to choose to receive their obstetrical care anywhere they choose, whether it be from a military or a civilian healthcare provider. The TRICARE Management Activity will pay the claims if the patient chooses a civilian provider, and the workload will be lost to the MTF. A private consulting firm studied the potential impact, and found that up to 50% of future OB patients might abandon Womack Army Medical Center (WAMC) (KPMG Consulting Site Visit Report, 2002).

In order to counteract the enormous impact this would have on the MTF, WAMC initiated a project to upgrade and enhance its OB services so that it could directly compete with civilian providers to retain these patients. Currently the OB initiative is underway with a price tag of over $4 million. Major product lines or services that WAMC is improving include the addition of ultrasound machines, and ensuring continuity of care with a single provider throughout the patient's pregnancy. Other enhancements include improved patient education services, OB admission procedures, private inpatient rooms, reserved patient parking, and several other amenities.

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Introduction

Womack Army Medical Center (WAMC) is the Military Treatment Facility (MTF) serving Fort Bragg, North Carolina. Among the beneficiaries that receive care here are active duty soldiers and their family members from the 82nd Airborne Division, the XVIII Airborne Corps, the U.S. Army Special Operations Command, and the 44th Medical Command. With approximately 48,000 active duty soldiers on post, WAMC serves a total beneficiary population of about 160,000 people, including family members and retirees.

Among the health services provided at WAMC is a large Department of Obstetrics and Gynecology, serving a beneficiary population of well over 72,000 female patients. On a typical day anywhere from 7 to 15 newborn infants are delivered in the hospital, with an average of about 250 total deliveries each month. This high volume of maternity patients makes Womack Army Medical Center one of the busiest obstetrical services in the Army. The Department of OB/GYN also includes a midwifery service, which is the largest in North Carolina. The certified nurse midwives deliver about 45% of the cases, and about 25% are delivered by family practice providers assigned to one of four primary care clinics. The remaining 30% are delivered by the OB/GYN staff. For inpatients, the Mother/Baby Unit (MBU) has a capacity of 34 beds, which is 22% of WAMC's total currently

operational bed capacity of 156. Accordingly, maternity care and services constitute a large proportion of the workload at the hospital.

Conditions which Prompted the Study

Historically, under the provisions of TRICARE Standard, female patients who desired to receive their maternity care at a civilian health care facility instead of their designated MTF were required to obtain a statement of non-availability. The Floyd D. Spence National Defense Authorization Act (NDAA) for Fiscal Year 2001 eliminated the military's authority to require this Nonavailability Statement (NAS). As it pertains to beneficiaries covered under TRICARE Standard, Section 721 of the law states that, "The Secretary of Defense may not require with regard to authorized health care services under any new contract for the provision of health care services under such chapter that the beneficiary—(1) obtain a nonavailability statement or preauthorization from a military medical treatment facility in order to receive the services from a civilian provider" (Public Law 106-398, 2000). A further subsection allowed the Secretary of Defense to obtain an exception to this rule under various broadly defined circumstances. However, Section 735 of the NDAA for fiscal year 2002 amended that rule by withdrawing the possibility of the Secretary's waiver authority with respect to maternity care (Public Law 107-107, 2001).

As a result of this legislation, any military beneficiary who is covered under TRICARE Standard may elect to receive obstetrical services from a civilian provider outside the MTF without preauthorization. The ramifications of this new opportunity for potential future patients are wide-ranging and highly significant for the entire Military Health System (MHS), and especially significant for WAMC, because of its high volume OB workload. A very real possibility exists that a proportion of WAMC's obstetrical patients might choose to enroll in TRICARE Standard instead of Prime, or disenroll from Prime and receive their maternity care from a civilian provider, financed through managed care support contracts.

In order to analyze the potential impact of this new legislation, the Office of the Surgeon General (OTSG) engaged a private firm, KPMG Consulting, Inc., to conduct an internal and external review and identify how many potential patients would be projected to seek maternity care outside the MTF. KPMG Consulting determined that in the short term 25 to 50% of current OB patients might abandon WAMC, and in the long term 50% or more of potential patients might choose maternity services in the civilian sector. This potential abandonment rate assumes that WAMC takes no steps to respond to the changes in the law, and that the civilian market responds aggressively to take advantage of the opportunity for increased market share.

The impact of losing that proportion of OB patients would be tremendous, and highly detrimental to WAMC in a number of ways. As the workload drains out of the MTF, managed care support contracts will suffer enormous financial burdens, with increasing reimbursements to civilian providers. The TRICARE contractor, Humana, currently pays these costs with funds that come from the TRICARE Management Activity (TMA). Nevertheless, although WAMC's budget would not be directly affected at the start, as OB workload decreases, budgets and staffing will be reduced accordingly. Since TMA will bear the ultimate financial burden, this also becomes an Army-wide issue. Other product service lines besides OB/GYN would be affected as well, due to the proportionate decrease in laboratory, nursing, pediatric, family practice, and pharmacy services. The Graduate Medical Education (GME) program could also suffer a decrement. The loss of jobs would have a devastating effect on the military community, both directly and indirectly.

Researchers estimate that women currently make about 75% of the decisions for their families' health care (OTSG Memo, 12 July 2002). The Army's Surgeon General has recommended that "We must recognize the degree of consumerism inherent to the childbirth process;" and further that, "childbirth is, in many cases, the single most important healthcare interaction our soldiers and their families will experience during their

careers" (OTSG Memo, 12 July 2002). The NDAA provisions will become effective in December of 2003, however, since an episode of obstetrical care may normally begin nine months prior to delivery, the impact of the NDAA may begin as early as March 2003. Clearly, Womack Army Medical Center must act promptly to address the potential loss of OB patient market share by enacting measures to attract and retain patients. Upon his arrival in the summer of 2002, the hospital commander established the OB initiative as the number one priority for the command.

As a part of their analysis, KPMG Consulting conducted a customer survey as well as a focus group to "fully explore the immediate potential to influence the decision of either remaining with or leaving WAMC for OB care, the current customer satisfaction of obstetrical patients and the components of their experience that would lead to deciding to abandon WAMC" (KPMG Consulting Site Visit Report, 2002, p. 4). KPMG Consulting conducted a thorough external environmental assessment, which established a baseline for the competition. Taking into consideration the level and quality of maternity services available in the civilian community, as well as a representative sample of the opinion of current patients and staff at WAMC, KPMG Consulting identified specific areas in which WAMC could make improvements that would exert a positive influence on

patients' decision to receive their obstetrical care at WAMC instead of choosing a civilian provider under TRICARE Standard (KPMG Consulting Site Visit Report, 2002).

The KPMG study showed that patients have come to expect certain services that are often offered in civilian healthcare settings, but not within the MHS. The availability of a routine formal ultrasound between 16 and 20 weeks of pregnancy, and continuity of care with the health care provider throughout the pregnancy are two of the major factors. Private postpartum inpatient rooms, with mother-baby couplet boarding as well as in-room boarding for fathers are also factors that patients desire, but are not always available in MTFs. In the past, certain standard practices within the MHS have amounted to barriers to access for OB patients. For example, a lengthy, mandatory patient orientation in a large group setting has often been a prerequisite to booking the patient's first prenatal care appointment, and admission to the orientation class could only be authorized following a confirmed pregnancy test. This process often resulted in a delay of several months before the patient could see a health care provider.

These are some of the major circumstances which led to the projection that up to half of WAMC's OB patients might abandon the hospital and elect to receive their health care elsewhere. Patients would have at least two viable options in the immediate

area, Cape Fear Valley Medical Center in Fayetteville, and First Health Moore Regional Hospital in Pinehurst. Of these two, Cape Fear Valley probably poses the greatest competitive threat to WAMC's OB workload retention. With 15 labor, delivery, and recovery (LDR) rooms on the labor and delivery unit, the hospital currently has the capacity to take on more patients. The hospital's neonatal intensive care unit (NICU) has 21 beds, and adjoins an intermediate care unit with 23 beds. The Level III NICU is the highest level possible, and the only one in Fayetteville (KPMG Consulting, 2002, p.21).

To the west of Fort Bragg is the town of Pinehurst, where Moore Regional Hospital is located. Although it is located in a somewhat rural area, Moore Regional offers a level of health care sophistication commensurate with that found in large cities. Moore Regional is the referral center for a 16 county area in North and South Carolina, and delivers over 1,500 babies annually. Moore Regional accepts TRICARE reimbursements and is willing to accept new patients. Furthermore, the hospital is set to cosmetically renovate all the rooms in the Mother-Baby Unit in 2003, an additional enticement to new patients (KPMG Consulting, 2002, p.24-25).

Statement of the Problem

With the enactment of the National Defense Authorization Act, maternity patients who are military beneficiaries will be

free to seek their obstetrical care at any civilian facility that they choose, under TRICARE Standard. Given that patients will no longer be required to obtain a Nonavailability Statement for obstetric care, up to 50% or more of these patients may abandon Womack Army Medical Center if they are enticed away to civilian facilities that offer more customer-focused care with a more liberal offering of personal and family amenities. This graduate management project will analyze these circumstances and answer this question: How can Womack Army Medical Center effectively compete with the civilian health care market to retain OB patients?

Literature Review

The concept of market competition between hospitals is well documented in the current health care literature. Sohn (2002) reviewed a number of methods for measuring this competition, presenting a new relational approach, and then comparing it with other measurement techniques. Sohn was able to produce a cross-sectional measure of market competition among hospitals, and determined that the markets were smaller than previously thought. Generally, Sohn's research noted that for-profit hospitals faced a great deal more competitive pressure than not-for-profit or government hospitals, such as WAMC. Sohn also found that the level of competition is not influenced by the hospital's size.

The “medical arms race phenomenon” was explored by Gift, Arnould, and DeBrock (2002), who studied the impact of hospital competition. Gift et al. reviewed the notion that this medical arms race concept produces inefficient competition, and added evidence to the contrary. They showed that competitive forces act the same way in hospital markets as they do in others. Prices will decrease as the number of competitors increases (Gift, Arnould, & DeBrock, 2002).

Sohn, Manheim, and Pierce (2000) also studied the effect of market competition among hospitals. Similar to the study by Gift et al. (2002), their efforts addressed the medical arms race concept, however, they used their measurements of hospital competition as a predictor of technology acquisition. Sohn et al. measured direct competition and produced a coefficient that could identify a given hospital’s strongest competitor. They then produced models that could predict the probability of a hospital acquiring or purchasing a particular piece of technology or a new service based on the strongest competitor with the same service. These authors also concluded that one of the most important marketing strategies for hospitals is to acquire a high profile service. Marketing any new upgrades in OB services will be crucial to WAMC’s success in maternity patient retention.

A 1996 study by Hadley, Zuckerman, and Iezzoni analyzed how performance and efficiency were affected by financial pressure and market competition. Hadley et al. showed that the least profitable hospitals constrained their growth in total expenses as compared to the most profitable hospitals. The least profitable hospitals limited the growth of their staffs and total assets, and this was associated with a small reduction in inefficiency. Although the most profitable hospitals' less constrained growth resulted in a slight increase in inefficiency, they enjoyed a higher growth rate in revenue and profits. Their conclusion was that "health care reforms or market forces that put financial pressures on hospitals can result in cost-containment and improved efficiency without significant cost-shifting" (Hadley, et al., 1996, p. 205). If WAMC is to increase or upgrade its services due to this impending market competition, organizational leaders must understand how the potentially large capital outlays associated with these changes will impact quality and efficiency. Obviously, these findings are favorable and encouraging for WAMC's venture capital considerations.

Similarly, Mukamel, Zwanziger, and Tomaszewski (2001) attempted to identify the association between competition and quality of health care. Their research design included HMOs and hospitals, and used risk-adjusted hospital mortality rates as

the measure of quality. In general, they found that HMO market penetration, as well as competition were associated with better outcomes, in terms of lower mortality rates.

The situation in which WAMC finds itself is certainly unique in the military health care environment, but not at all out of the ordinary for the civilian sector. Hospitals and health systems have continually had to address circumstances such as these, as Thompson (1996) has documented. Thompson studied the economic effects of the outmigration of obstetric services in a rural county and recognized that the "provision of medical services is an important component of the economic base of all communities," and that a loss of medical services to another community results in a loss of both direct and indirect economic benefits (Thompson, 1996, p. 100). One community in Thompson's study lost its obstetric services, and the hospital suffered a 12% decrease in revenue. If WAMC loses OB patients to outside providers, the impact on the rest of the hospital must be understood, as well as the effects on the community in terms of job losses. Avoidance of any negative impact is precisely why this venture was initiated.

Attempts to provide a solution to these difficult circumstances with obstetric services were studied by Osmun, Poenn, and Buie in 1997. Their study examined a Canadian community which organized an effort to improve its OB services,

including upgrading access and working conditions, as well as the availability of physicians and a nurse-midwife. Although at first the organization experienced resistance to the initiative, after an adjustment period the new organization has found acceptance (Osmun, Poenn, & Buie, 1997).

If WAMC is to be successful in its endeavor to attract and retain maternity patients, the leadership must understand what factors will most influence this competition. In Germany Cassier-Woidasky (1998) explored what people expect from their hospital. The study determined that any "structural changes in a hospital must be aimed at patient's needs and requirements" (Cassier-Woidasky, 1998, p. 248). Taking into account the relevant factors of increasing competition between hospitals, as well as the demand for quality, Cassier-Woidasky found that hospital management must have a good knowledge of patients' needs and expectations. Perhaps this is one concept that should receive more attention in the MHS, and is significant to WAMC's planning for the OB initiative.

KPMG Consulting identified many of the prominent considerations that influence patients' decisions with regard to where they will choose to access their OB care. The consensus is well established, with other recent research confirming this as well. For example, Tinson (2000) studied the service experience of maternity patients in order to understand the consumer

aspect. Tinson concluded that hospitals must be responsive to the needs of consumers in order to be effective service providers. Kwast (1998) also studied reproductive health programs and identified the need for services to be responsive to women's and their families' needs and expectations.

As far back as 1980, Blanton articulated this need for hospitals to compete for patients as a consumer of services. Blanton cautioned, "There's no such thing as a not-for-profit hospital," and that even government-owned institutions must recognize that "the intensity of use of its facilities are the determinants of profit or loss" (Blanton, 1980, p. 41). As Womack Army Medical Center seeks ways to compete with its civilian counterparts for OB patients, this research is particularly relevant. Blanton identified the need for hospitals to compete in several "facets of care: in comprehensiveness of services; in availability of services, including beds, privacy, waiting times, appointment times, and telephone and other communications: and in accessibility of care" (p.42). Furthermore, since patients' attitudes are rarely influenced by considerations of cost, hospitals should compete "by means of amenities such as décor, admitting office procedures, the presentation of food and drink… automobile parking facilities, and many other niceties" (p.42).

Purpose

Womack Army Medical Center must take steps to persuade its future OB patients to chose WAMC, instead of electing to receive their care from a civilian facility under TRICARE Standard. KPMG Consulting has identified certain variables that influence patients' decision to access OB care at WAMC or elsewhere. The purpose of this study is to analyze the current situation and each of the major variables that can be modified in order to attract and retain patients. The actual process of upgrading services will be tracked, documented, and evaluated; including the marketing strategies, financial requirements, and the venture capital effort.

Method and Procedures

Although the provisions of the NDAA will officially become effective in December 2003, patients could actually be allowed to begin their course of treatment with a civilian provider as early as March 2003. This sets the degree of urgency to address this issue at a high level, and the WAMC staff must take prompt action. Accordingly, the hospital commander designated this initiative as the top priority for the hospital. A committee was formed to identify a course of action, based primarily on the findings in the survey by KPMG Consulting. The leadership in this project includes the chiefs of the Department of OB/GYN, Midwifery Services, nurses from Labor and Delivery, and the

Mother/Baby Unit. Representatives from Facilities Management, under the Logistics Division, are assisting with the physical changes that will be made to the building and parking situation. The Directorate of Business Operations prepared the Unfinanced Requirements (UFR) request to obtain the venture capital. Periodic video teleconferences (VTCs) are held with the Army's OB/GYN consultant, LTC Carlson, located at Walter Reed Army Medical Center, and representatives from all Army MTFs around the world that provide maternity services. All efforts are routinely briefed to the Executive Committee of the hospital for approval.

This project is a case study of Womack Army Medical Center's OB service initiative using a qualitative research design. This project tracks all the steps in this process, beginning with the identification of the problem. It includes an analysis of the results of the initial survey and a delineation of the variables in the study, as well as additional factors identified by the WAMC staff during the process. This project documents all coordination within Womack Army Medical Center and between outside sources that I monitored during the process. It also includes a review of the results of all the committee's deliberations and plots the course of action that was chosen. I conducted an analysis of the efforts to upgrade services within WAMC, including the obstacles and challenges faced, and the

methods used to overcome them. The project includes a detailed analysis of the financial process through which funds will be obtained for the initial startup, as well as the long-term maintenance and support of the new services. I also reviewed the strategies employed to market the new and improved OB services to patients and the community.

Results

WAMC received a new commander, COL David Maness, in July of 2002. During one of the first meetings with the key hospital staff, he delineated his command priorities, and the OB initiative ranked number one. A process action team was already getting started at that time, and a working plan was being developed. The team's focus and mission resulted from KPMG Consulting's report, which identified the threat of losing OB patients, and also named specific hospital services that should be upgraded or improved in order to attract and retain patients.

Process Sequence Overview

By early September 2002, a memorandum was ready to go forward to the North Atlantic Regional Medical Command (NARMC) that proposed an obstetric care business initiative and requested venture capital funding. This memo informed NARMC of WAMC's intent to refine and expand on key services and to reengineer the OB service practice. The request included the need to invest in renovations, staff augmentation, and new

equipment. Based on the KPMG survey as well as local input, the business initiative funding request memo listed the following priorities:

1. Continuity clinics
2. Increased use of ultrasounds
3. Private rooms
4. Increased lactation services
5. Dedicated patient parking
6. Convenient vending machines on the Labor & Delivery ward
7. Web-based newborn pictures
8. Dedicated operating room techs for Labor & Delivery
9. Labor & Delivery antepartum testing center
10. Outpatient nurse education

The committee identified these areas based on the need to meet and exceed the private sector standards, since most of the major complaints about maternity care in the MTF are the result of direct comparisons with competing civilian hospitals.

The request specified four major areas where funding would be required to bring about the ten priorities listed above. The four areas were staffing, facility renovation, equipment procurement, and marketing. The Directorate of Business Operations prepared the Unfinanced Requirements (UFR) request, which totaled almost $5.2 million in one-time and recurring costs. Initially the command wanted to hire 36 new employees,

whose salaries would total $2.3 million. This included new physicians, sonographers, medical clerks, and others.

Table 1 shows the cost breakdown of the funds that WAMC requested from NARMC in September 2002. With a combined request of almost $5.2 million for the one-time startup costs, as well as the first year's recurring costs, this was the first total dollar figure placed on the project.

Table 1.

Original Financial Requirements Summary

	Recurring	One-Time
Staffing Total	$2,376,286	
New hires	$2,236,286	
Locality adjustments	$140,000	
Supplies Total	$15,000	
Misc. medical	10,000	
Misc. administrative	$5,000	
Equipment Total	$30,000	$1,408,000
2D ultrasound machines		$576,000
4D ultrasound machines		$750,000
Ultrasound printers		$16,000
Breast pumps		$6,000
PC workstations	$30,000	$60,000
Other Total	$302,500	$1,056,848
Facility renovation/relocation		$1,052,848
Modified housekeeping expense	$140,000	
Marketing plan (all media)	$100,000	
Additional medical maintenance	$30,000	
Special meals	$10,000	
Care baskets	$10,000	
Web-based pictures	$7,500	
Special staff scrubs	$5,000	
Maternity patient parking		$4,000
Total	$2,723,786	$2,464,848

(WAMC, Directorate of Business Operations, 2002)

The goal of providing private inpatient rooms to all maternity patients called for a $1.05 million investment in construction and relocation costs in order to expand the Mother-Baby Unit into an adjacent pediatrics ward. The expansion would double the number of inpatient rooms available for mothers, but

the Pediatrics ward would have to be relocated to another floor. Although the ward expansion idea was later postponed, it was initially part of the overall plan. The WAMC commander asked for over $1.4 million to purchase new equipment that would enhance the OB experience for patients. Most of the enhancement was in the form of newer, more advanced ultrasound machines, which would not only improve the quality of ultrasounds performed, but would also significantly expand the capacity to provide the service to all OB patients. Having an ultrasound scan and picture was one of the primary desires expressed by patients, whether it was medically necessary or not, and was one of the major goals of the entire project. The addition of new machines and an increase in the sonography staff would make routine ultrasounds for all patients possible, and would bring WAMC to a competitive point on the same level with other hospitals or even better.

The committee also estimated the marketing costs that would be required to make the whole initiative successful. Obviously the present and potential future patients would only be able to make their choice in favor of WAMC if we could get the word out. Accordingly, $100,000 was proposed in order to begin a marketing campaign. The cost estimate was admittedly only an approximation, because at this point the organization had not fully developed its marketing strategy.

The memorandum from WAMC's commander to NARMC in September 2002 was the original funding request. The Office of the Surgeon General (OTSG) was already well aware of the issues caused by the NDAA and was expecting all MTFs that provide OB care to submit their plan and funding requirements estimates. Once that directive had been answered, the WAMC staff had more time to analyze the investment that was required and what the potential return could be.

The WAMC Directorate of Business Operations (DBO) conducted a detailed analysis of the circumstances and the potential financial impact. The DBO produced a comparison between what KPMG Consulting projected the patient abandonment losses would be, and the DBO's own internal projection. With this analysis the DBO was able to give an estimate of the net savings or loss summarized for each of the next three fiscal years. The projection was based on a 50% loss in patients, and then three future scenarios were used in which WAMC is able to recapture either 25, 50, or 75% of the loss. With this estimate the DBO determined that, although there would still be a net loss for FY03, if half or three-quarters of the loss could be recaptured, then WAMC would still have a positive savings in the long term (WAMC, Directorate of Business Operations, November 2002). This analysis showed that the OB initiative was a financial necessity, and that if carried out successfully, would avoid the

loss of millions of dollars to the facility. With this data the command verified that the project was a viable and worthwhile endeavor.

Financial Factors

A major component of this project examined the financial process by which funds are disbursed from the federal government to pay for military health care, and ultimately how this funding will impact obstetrical services. Funding for the Defense Health Program (DHP) comes through the Office of the Assistant Secretary of Defense for Health Affairs. The TRICARE Management Activity (TMA) receives these funds and allocates them to the surgeons general for each of the three services, Army, Navy, and Air Force.

Currently, a system known as revised financing is being used to pay for TRICARE Prime network costs. Before the revised financing method was instituted, network claims were paid directly by TMA, and the local MTF never had to be involved. The MTF only saw the previous year's report as to how much was spent on the network. With revised financing however, the MTF must now pay the TRICARE Prime network claims. The MTF's managed care office normally receives the invoices, verifies them, and passes them on to the budget office for payment. Revised financing was supposed to provide an incentive to the MTF to control network costs.

The TRICARE contractor for WAMC's region is currently Humana. Since revised financing only pertains to TRICARE Prime claims, all TRICARE Extra and Standard claims are still paid by Humana, with funds they receive from TMA. The NDAA will remove the requirement for OB nonavailability statements for TRICARE Standard enrollees, but not for beneficiaries falling into other enrollment categories. In effect, the MTF will not be required to directly pay any costs resulting from OB patients who choose to avail themselves of the opportunity to seek their maternity care outside the MTF. Humana will handle these claims with TMA funds, and the average cost of an episode of OB care is about $9,000 to $10,000 per patient.

The OB patient herself will also be insulated from the cost of her health care because TRICARE Standard does not require a deductible for inpatient care, and all maternity related visits are considered to be one all-inclusive episode of care. The patient who delivers her baby in a civilian facility would only have to pay a total of $25. Thus no financial incentive exists for the patient to choose to enroll in TRICARE Prime and have her baby in a military hospital. Relating to obstetrical care then, the mother-to-be can chose the facility, civilian or military, based on any perception of quality or personal criteria that most appeals to her, without regards to financial

considerations. The hospital that provides the best services and has the best reputation will most likely be chosen.

Continuity Clinics

One of the main issues that the KPMG survey identified was the strong desire for patients to have continuity with their healthcare provider during their pregnancy. Under the past system, patients often had to see whatever provider was available for each periodic clinic appointment. Most patients prefer to be seen by the same person, however, and this would be a major drawback in the effort for WAMC to compete with the civilian sector, where patients normally see the same doctor all the time.

Accordingly, LTG Peake, The Army's Surgeon General, directed that all MTFs should implement changes in their scheduling with a goal of ensuring that at least 75% of antepartum visits are with the same provider (OTSG Memo, 12 July 2002). WAMC's target date to begin its continuity clinics was 1 October 2002, and so far this effort has been successful. The ongoing issue pertains to the tracking of this data, so that accurate statistics can be kept regarding WAMC's ability to meet the goal of 75% same provider continuity. At first an OB staff clerk collected the data in an informal report by tracking which patients had not seen their primary provider and why. After consulting with the Fort Belvoir MTF in November, however, the

OB staff was able to begin tracking patient-provider continuity through CHCS by the beginning of December.

Ultrasounds

The KPMG survey results clearly showed that patients placed a high priority on the opportunity to have a routine ultrasound scan during their pregnancy. Normally a provider would only order an ultrasound if it was medically necessary, but many patients have come to expect this service. Whether medically indicated or not, most patients desire to be able to "see" the fetus for a variety of reasons, including discovering the baby's sex, personal reassurance, or simply to obtain a keepsake photo. Ultrasounds are becoming a routine offering at many civilian facilities, and if WAMC neglects this service, it cannot expect to be seriously competitive in the current market.

Accordingly, WAMC conducted an analysis to determine what new resources would be required to ensure the capability of providing an ultrasound to every maternity patient. WAMC requested a total of four new ultrasound machines. Coordination was necessary between the department of OB/GYN and radiology. The OB staff planned to add two of the new machines to the current ultrasound room, and install a third in an adjacent exam room. The fourth machine went to radiology. The first two machines actually arrived in mid-November, and the next two were delivered in mid-December. Initially there were some mechanical

problems and the probes were not sent with the machines. The problems were resolved and training for the staff began in early January.

Along with the purchase of the actual ultrasound machines, the staff determined that three new DINPAC monitor links were needed in the OB clinic to accommodate the machines, as well as additional beds and chairs. The OB NCOIC ordered them in November, and all were in place by early December. The radiology department also realized that renovations were required to accommodate the additional ultrasound scan room, and this would cost an extra $40,000 which was not in the original business case analysis. Fortunately, OTSG paid for all the new costs for the ultrasound machines and monitors. This was a welcome infusion of funds, and allowed the Directorate of Business Operations to revise its total cost estimate for the OB initiative (see Table 3).

Private Inpatient Rooms

Another of the major priorities for this initiative, based on patient feedback, was to provide individual inpatient rooms for patients on the Mother-Baby Unit. Currently there are 34 beds for mothers on the unit, with an equal number of bassinets for newborns who all stay with their mothers in the same room, an arrangement known as couplet boarding. Each of the rooms are designed for two mothers to share at a time. The MBU staff

normally attempts to arrange the room assignments so that patients can have a private room with their baby, however, depending on the patient census, this is not always possible.

Currently the MBU occupies half of the third floor on ward 3 South, and the other half, 3 North, is the Pediatrics ward. As part of the venture capital project, the OB initiative staff planned to expand the MBU, taking over the entire third floor in the inpatient tower of the hospital. The expansion would double the space for the unit, but would require the Pediatrics ward to relocate elsewhere. The main possible alternate location for the Pediatrics ward is on 4 North, which is presently occupied by administrative sections, including Hospital Education and Staff Development (HESD), and the Quality Services Division. Herein lay the first major obstacle because of the difficulty in finding alternate space for these offices. On 31 October 2002, the OB staff met with members of the Army's health facilities planning agency. They recommended that the medical architect reevaluate the need for this ward conversion.

The major barrier to this plan, however, turned out to be the funding. The cost of facility renovations related to expansion and relocation exceeded $1 million (for cost details see the Appendix). Construction of that nature requires MILCON funds, which are difficult to obtain. The MTF can only approve facilities changes costing up to $25,000, and the Regional

Medical Commands can only approve work of up to $300,000. Unfortunately, the funding difficulties caused the plan for MBU expansion to sink to the bottom of the priority list. The goal of providing private rooms to all inpatients is still in effect, however, until funding is approved by OTSG, the ward will stay where it is currently located. This indefinite postponement was another cost that was deleted from the next revision of the total OB initiative cost (see Table 3).

Stork Parking

In order to further facilitate access to care for the OB patients, the WAMC staff sought to provide reserved parking spaces near the entrances to the hospital. This patient amenity was nicknamed Stork Parking. Obtaining approval for installation of the new signs was one of the first obstacles that WAMC faced. The Public Works Business Center (PWBC) for Fort Bragg had to first approve the reserved parking signs in accordance with post policies. The request went to PWBC by 30 September 2002, and was approved within 60 days. Working with the logistics staff at WAMC, several versions of the parking signs were reviewed and ultimately one style was selected and ordered. The signs were installed during the first week of December.

During the preliminary planning, the OB initiative staff wanted to produce paper placards which would be the permits required to park in the reserved spaces. These permits would be

given to the OB patients at the clinic, however, after further discussion, the permit idea was discontinued. The staff feared that issues would arise that might negate the positive benefits of having "stork parking." For example, given the high volume of patients moving through the OB clinic and L&D unit, would patients end up fighting over a small number of spaces, and become resentful instead of appreciative? Thus, stork parking spaces exist, but enforcement is based on an honor system and no tickets are issued for illegal parking.

Orientation

The previous process for a potential patient to enter the OB system actually amounted to a barrier in access to care. For example, if a woman wanted to make her initial OB appointment, she would first have to attend an orientation session that lasted four hours, and could not usually be scheduled immediately. Furthermore, no children were allowed in the class, which caused additional difficulties for many patients with children. Then, along with the orientation, a lab test confirming pregnancy was required before the patient could make her first appointment. Under this system, the patient could be two months or more into her pregnancy before she ever saw an individual provider to receive care. These hassles discouraged many potential patients, and if allowed to continue, the process

would make WAMC that much less competitive with the civilian healthcare sector.

The WAMC OB leadership rectified the orientation problem by redesigning the process. The improvement came as a result of a change in philosophy that the commander wanted to implement. The "gatekeeper" system that was intended to prevent unnecessary appointments proved to be too much of a delay and a discouragement to patients, and was nothing more than an access barrier. From a patient perspective, the experience associated with this process was often negative.

Under the commander's new philosophy, when a woman calls the clinic saying that she thinks she is pregnant, an appointment is made immediately, and she enters the OB system. If it turns out that she is not actually pregnant after all, then the OB department chief does not consider the 'false alarm' to be a wasted appointment. The appointment is still a worthwhile patient-provider encounter because if the patient is not pregnant, but wanted to be, then fertility issues can be discussed. If, however, the patient erroneously thought she was pregnant, and did not want to be, then the provider can discuss contraception issues. Therefore, either way the visit with a provider is a worthwhile appointment resulting in better quality care for the patient, in a more customer-friendly system. Lab tests confirming pregnancy are no longer a requirement, and

children are allowed in all appointments at the OB clinic. Instead of the large class mass orientation, patients can see an individual provider, usually a certified nurse midwife, to receive their orientation and have their questions answered privately.

Admission Procedures

Another issue raised during this project was the perceived inconvenience that family members had to go through to admit the mother and baby to the hospital. Previously, when the mother arrived at the Labor and Delivery unit, the father would have to leave and go down to the Patient Administration Division (PAD) offices on the first floor to complete the admission paperwork. Patients expressed extreme displeasure over the requirement for the husband to leave the patient's bedside while in labor, and when birth may be imminent. The ideal process would call for the PAD admissions clerks to be able to admit patients at the bedside. After coordination with the chief of PAD, the staff determined that husbands would no longer have to leave the bedside to admit patients in labor. L&D staff will call PAD for new admissions, and the clerks will send up the paperwork via a cart system. Additionally, the PAD clerks will carry a pager in case they cannot be reached by phone. The new admission process was in place by the end of October 2002.

Additional Staffing Requirements

In order to accommodate the plans for upgraded services, the WAMC staff determined that additional personnel would have to be hired. The majority of new staff were needed in radiology in the form of ultrasound techs and one new radiologist. In order to provide an anatomical ultrasound scan to every OB patient between 16 and 20 weeks of pregnancy, the staff requested three new ultrasound techs. The intent is for these personnel to belong to the department of radiology, and rotate through the ultrasound suite in the OB/GYN clinic. Currently WAMC is still waiting for approval of these new hires, and recruitment has been difficult. The current ultrasound techs at WAMC are paid between $18-$22 an hour, whereas civilian techs in the community can earn $30-$35 an hour.

The OB staff requested one new maternal fetal medicine physician, developed a Statement of Work, and sent the contract to MEDCOM by 1 October 2002. The position was approved by 15 October, and the contracting office put out a bid for the contract by 1 November. Unfortunately, a shortage of maternal fetal medicine physicians exists in the community, and the organization has had no success with the hiring action.

A variety of additional clerks, nursing assistants, licensed practical nurses (LPNs), and registered nurses (RNs), were also requested. Clerks are needed in radiology, the OB

clinic, and Family Practice to support the increase in ultrasound scheduling. Extra nursing assistants, LPNs, and medical clerks are needed to support the expansion in the Mother/Baby Unit, nevertheless, the hiring of these new personnel is still pending because the ward expansion has not been authorized yet. One of the original priorities was also to increase lactation services, and so as part of the initiative WAMC requested hiring two new lactation consultants.

The Directorate of Business Operations produced a salary estimate based on all 36 of the desired positions being hired as General Schedule (GS) government employees. An additional estimate was based on all the positions being contracted, and this cost was slightly higher. The DBO nevertheless recommended that most of these positions be filled by contractors, at least for the first year, to provide an opportunity to evaluate the level of effort that would actually be needed. Table 2 depicts the salary requirements estimates for both GS employee and contractor options.

Table 2.

Salary Requirements Estimates

Position	#	Salary per GS position	Total cost for GS employees	Total cost per contract position	Total contract cost
Ultrasound tech	4	$62,868	$251,472	$49,901	$199,604
Perinatologist	1	$196,444	$196,444	$302,500	$302,500
Radiologist	1	$196,444	$196,444	$302,500	$302,500
RN for MBU	3	$61,280	$183,840	$88,775	$266,325
LPN for MBU	2	$38,495	$76,990	$56,056	$112,112
Nursing asst. (MBU)	3	$32,766	$98,298	$27,456	$82,368
Nursing asst. (OB)	1	$32,766	$32,766	$27,456	$27,456
Med. clerk (clinic)	7	$32,766	$229,362	$33,411	$233,877
Med. clerk (wards)	4	$32,766	$131,064	$33,411	$133,644
Lactation consult.	2	$61,280	$122,560	$88,774	$177,548
RN, genetic couns.	1	$61,280	$61,280	$88,774	$88,774
Per clin nur spec	1	$67,321	$67,321	$93,500	$93,500
OR tech (L&D)	6	$40,867	$245,202	$37,002	$222,012
Total	36		$1,893,044		$2,242,220

Note. Salary per GS position includes benefits, signing bonus, and physician compensation.

(WAMC, Directorate of Business Operations, 2002)

All of these positions had been awaiting funding for several months. Although WAMC has not yet received funding for these positions, on 28 February 2003 the chief of the WAMC budget branch authorized the human resources office to proceed with the hiring actions.

Miscellaneous Patient Amenities

In addition to these major enhancements, the staff planned enhancements to numerous other smaller-scale services. As a convenience to family members attending to a patient in labor, the staff requested vending machines on the third floor near the entrance to the birthing unit. Previously, husbands or other family members had to leave the Labor and Delivery Unit and go down to the basement of the hospital to buy snack food after-hours. The vending machines were installed by the end of October.

Following the example of other hospitals in the civilian community, the OB committee developed plans to implement special meals for new mothers prior to their discharge. Hydrotherapy tubs for patients in labor were also requested, but are still awaiting funding. The staff also examined the possibility of ordering unique scrub uniforms for personnel working on the Labor and Delivery ward and the Mother/Baby Unit. This was intended to bolster the espirit de corps of the OB staff, and enhance the appearance of these patient care areas. Currently,

due to funding shortfalls and issues with laundering the uniforms, purchasing these scrubs is a low-priority item.

Army-Wide Coordination

WAMC is not the only MTF facing the threat of maternity patient abandonment. The changes in the NDAA make this an issue for all three branches of service, since about 50,000 babies are born in Department of Defense medical facilities each year, and roughly 40% of all inpatient military healthcare business involves obstetric workload (Gilmore, 2003). Beginning in the summer of 2002, an Army-wide program was underway to share information, and coordinate efforts between MTFs. Currently there are 27 Army facilities around the world participating in this initiative. LTC Jay Carlson, the Army's OB/GYN consultant at OTSG, is responsible for this coordination. The MTFs hold a video teleconference (VTC) once a month to update their status and to discuss issues and challenges. OTSG keeps a progress report with the current status of each MTF with regards to their fulfillment of several standard expectations. These expectations are grouped into four areas: access, clinic prenatal care, labor & delivery, and customer satisfaction.

The access standards include such requirements as "stork parking" for pregnant mothers or women with infants, the elimination of the requirement for a pregnancy confirmation prior to scheduling the first appointment, and allowing children

to attend clinic visits. So far, all 27 MTFs have eliminated the pregnancy test requirement, and allow children in clinics. Nineteen out of the 27 have provided stork parking. The clinic prenatal care standards include individual OB orientation instead of the large group setting, of which WAMC is currently one of only 13 MTFs in compliance. The continuity goal of having 75% of prenatal visits with the same provider is also part of this standard, but less than half of the MTFs have been able to fully achieve this level so far. Offering every woman an anatomic ultrasound between 16 and 20 weeks of pregnancy is another goal that has not yet been fully realized Army-wide, but better than half of the Army treatment facilities that offer these serves have achieved this goal.

Marketing Plans

A key aspect of the OB initiative is the marketing strategy. The population of military beneficiaries must be aware of the OB service improvements and enhancements so that they will be inclined to stay at the MTF for maternity care. The committee members decided on several different approaches to the marketing effort. Externally, WAMC provided advertising in the beneficiary community through articles in the Fort Bragg newspaper, the Paraglide. The WAMC Public Affairs Office (PAO) coordinated these news releases, and also provided a front-page article in the October 2002 edition of the WAMC monthly

publication, The Medic. These articles highlighted the team-approach and family-centered maternity care offered at WAMC. Provider continuity goals, routine ultrasounds, stork parking, and improved patient education were also advertised.

The staff also researched a variety of marketing options for use within the hospital. Most of these internal approaches will serve as both an additional patient amenity, as well as a marketing tool. For example, the OB committee made plans to implement a program in which digital photos of newborns can be placed on a special website for family members and friends. Currently there is a commercial program available through Welcomenewborn.com, which would cost about $7,500 a year to operate. Under this program, the patient provides a list of email addresses of family and friends prior to delivery. When the baby is born, the new parents use a digital camera kept on the Mother/Baby Unit to take photos, and then these are transferred to the Welcomenewborn.com website at a kiosk on the ward. The people on the pre-arranged email list are then automatically notified of the private website address for the newborn. WAMC's Information Management Division (IMD) reviewed and approved the proposal, and the legal staff is currently working on developing a contract. This has not been implemented yet, however, since the Department of Defense indicated that it

may develop a similar system on its own, though not quite as intricate as Welcomenewborn.com.

Another marketing tool that was implemented is the playing of lullaby music over the hospital public address system whenever a new baby is delivered. This was something that has been done in other hospitals around the country, such as the University of North Carolina Medical Center. Many of the staff were familiar with it, and recommended its use here at WAMC because of the positive response. Much discussion ensued, however, because some members were concerned about the effect this music would have if played throughout the hospital, how long and how loud it should be played, who would be authorized to activate it, and so on. Ultimately, this idea proved to be the cheapest and quickest enhancement in the OB initiative. The chief of the OB department obtained a free copy of the Brahms' lullaby, and the facilities manager arranged to broadcast the music at low volume for a few seconds whenever a baby is born. This was in place by 1 November, and the music can now be heard playing softly from time to time throughout the day and night all over the hospital. As a result, people frequently pause and take notice that another baby has just been born, evoking pleasant sentiments, and bringing positive publicity to WAMC's maternity services.

Other marketing efforts are still in the process of being developed. The assistant OB chief initiated an effort to produce a department website, coordinating with both the WAMC PAO and IMD. For patient education purposes, the web developers plan to use excerpts from the clinical practice guidelines for childbirth on the website. More extensive marketing plans for the future will hopefully be forthcoming. Mass media advertising is a goal, and the MEDCOM Staff Judge Advocate has already opined that it is legal for WAMC to market through radio and television in the civilian community.

Revised Total Cost Estimate

As the staff progressed through the development of the OB initiative, the original cost estimates changed. Since OTSG paid for the ultrasound equipment, that requirement was eliminated, but additional medical maintenance costs of $30,000 each year were added. The cost of hiring new staff was also adjusted slightly, and this is reflected in Table 3. Postponing the renovations and expansion of the Mother/Baby Unit, as well as the relocation of the Pediatrics ward, also eliminated a substantial expense from the original cost estimate. Table 3 shows the revised total cost estimate.

Table 3.

Revised Financial Requirements Summary

	Recurring	One-Time
Staffing Total	$2,382,224	
New hires	$2,242,220	
Locality adjustments	$140,000	
Supplies Total	$30,000	
Educational materials	$15,000	
Misc. medical	10,000	
Misc. administrative	$5,000	
Equipment Total	$62,000	$95,000
Hydrotherapy tubs		$26,000
Breast pumps		$6,000
PC workstations	$32,000	$63,000
Additional medical maintenance	$30,000	
Other Total	$292,500	$7,000
Marketing plan (all media)	$250,000	
Special meals	$5,000	
Music	$12,500	$3,000
Care baskets	$10,000	
Special staff scrubs	$15,000	
Maternity patient parking		$4,000
Total	$2,766,724	$102,000

(WAMC, Directorate of Business Operations)

Discussion

The removal of the requirement to obtain a nonavailability statement for OB care is unique in the history of health care in the military. Normally the military does not engage in direct, open competition with the civilian sector for patients who have

an open-ended choice of health care options, and the short time suspense necessitated prompt action. All of the effects of this initiative are not yet known. However, if these efforts are successful, then a significant proportion of future maternity patients will choose to enroll or remain with TRICARE Prime and receive their OB care at WAMC. This will result in a huge cost avoidance by providing the care in-house instead of paying civilian providers at TRICARE reimbursement rates. Under the current financial arrangement, TMA will stand to gain the most from this endeavor, strictly in terms of total funding required, because TMA pays the TRICARE Standard claims. The greatest impact for WAMC itself if this initiative is successful is the preservation of numerous jobs within the hospital, because the workload volume will remain constant.

The lessons that we are learning during this project are important to the future of health care operations. The military will continually have to adapt to a changing landscape in health care administration, and this particular venture provides invaluable experience. The ultimate success of this project will not be evident until perhaps one year or more into the future, when data will be available showing how many patients actually decided to leave WAMC for civilian providers, after the NDAA takes effect. A future study is therefore possible in which patient data over the long-term can be tracked and compared with

current circumstances in order to identify trends in patient abandonment, patient satisfaction with current services, and possibilities for further improvement.

Currently, however, the staff has concerns about the progress of this endeavor. When the OB service issue first arose, WAMC immediately responded by forming a committee and conducting a thorough analysis of the situation. The OB initiative group produced a long list of possible options that would give WAMC the edge when competing against civilian healthcare providers for OB patient market share. Over the following months, as a result of army-wide coordination and ongoing experience, the plan was further refined into a very workable, realistic venture capital proposal. Nevertheless, funding is still an issue.

The Army Medical Department's periodical, the Mercury reported in October 2002 that LTG Peake, the Surgeon General, had approved $9.9 million in FY02 money to support OB improvements Army wide and establish a project office (Harben, 2002). Initially OTSG informed WAMC's Directorate of Business Operations that $4.2 million in funding would be provided to the MTF for the OB initiative. However, with the strains on the current federal budget, the WAMC staff has concerns about funding, of which the OB initiative is only one requirement out of many deserving projects. LTG Peake stated that he believed

the FY03 budget to be barely sufficient to sustain core operations, and certain measures had to be implemented to ensure that the AMEDD could weather the current budget crisis (OTSG memo, 12 Nov 2002).

Accordingly, LTG Peake has lobbied Congress in an effort to thwart the full potential impact of the NDAA's enactment, by asking for a 20% co-pay as a financial disincentive to patients to disenroll from TRICARE Prime for OB care. He has also sought to delay the 2002 NDAA implementation until 2004, so that the services can have time to make improvements (Fiorey, 2002).

Additionally, the current deployment situation on Fort Bragg, as well as the rest of the military nationwide, has created new challenges for WAMC. Homeland defense, bioterrorism preparedness and other precautions have caught the national attention, and have become current mission tasks at WAMC. Smallpox and anthrax immunizations have begun anew, and reserve component mobilizations have been ordered and are currently in progress. Soldier Readiness Processing (SRP) is one of the primary missions for WAMC, and with the current deployments to the middle-east, the Soldier Readiness Center at Fort Bragg, operated by WAMC, has been processing hundreds of soldiers a day. Accordingly, on 6 January 2003 COL Maness, the WAMC commander, directed a reordering of hospital priorities. Whereas the OB initiative had been the number one priority since August

2002, the commander now moved it to the number two position, with the deployment preparations becoming the top priority.

As a result of these challenges, the urgency of the OB initiative may soon be in danger of losing momentum. Fortunately a solid plan has been in place for over six months, and substantial progress has already been made by implementing many of the new services and patient amenities. Nevertheless, if the venture capital funding does not materialize, then WAMC will not be able to bring all of its plans to fruition and achieve the level of success with this endeavor that is immediately possible.

Summary and Conclusions

With the enactment of the National Defense Authorization Act, maternity patients who are military beneficiaries will be free to seek their obstetrical care at any civilian facility that they choose, under TRICARE Standard. Without the previous gate-keeping safeguards that the requirement to obtain a nonavailability statement imposed, up to 50% or more of these patients may abandon Womack Army Medical Center if they are enticed away to civilian facilities that offer more customer-focused care with a more liberal offering of personal and family amenities. This graduate management project analyzed these circumstances and sought to answer the question of how Womack

Army Medical Center can effectively compete with the civilian health care market to retain OB patients.

Through a careful process of analysis and planning by key leaders throughout the organization, WAMC has indeed produced a very sound, practical strategy to improve and upgrade its current maternity services to a level at least commensurate with, if not exceeding standards normally available in the civilian community. With sufficient marketing as well as word of mouth recommendations, the quality of care and the maternity customer service at WAMC should be held in high regard within the community of military beneficiaries. Although no financial incentives nor disincentives exist for patients to choose to receive OB care at WAMC versus a civilian provider under TRICARE Standard, the effects of the OB service initiative should result in the majority of potential patients electing treatment at WAMC.

Appendix

Cost estimate to expand the Mother/Baby Unit and relocate the Pediatrics ward to 4 North

Description	Qty	Unit	Unit $/ Material	Material	Unit $/ Labor	Labor	Sub-Total	Extension
Build Negative Pressure Isolation	3	EA	$40,000	$ 120,000	$30,000	$ 90,000	$ -	$ 210,000
Relocate Double Lite Doors	14	EA		$ -	$ 100	$ 1,400	$ -	$ 1,400
Relocate Single Lite Doors	14	EA		$ -	$ 100	$ 1,400	$ -	$ 1,400
Install 3 New Double Lite Doors	3	EA	$ 1,000	$ 3,000	$ 200	$ 600	$ -	$ 3,600
Install lavatories on 3 South	17	EA	$ 400	$ 6,800	$ 150	$ 2,550	$ -	$ 9,350
Install Bathtubs in Latrines	15	EA	$ 1,000	$ 15,000	$ 1,500	$ 22,500	$ -	$ 37,500
Latrine Wall Demolition	15	EA	$ 100	$ 1,500	$ 500	$ 7,500		$ 9,000
Ceramic Floor Tile in Latrines	3000	Sq. Ft.	$ 10	$ 30,000	$ 5	$ 15,000		$ 45,000
Relocate Playroom	1	LS	$ 5,000	$ 5,000	$ 3,000	$ 3,000	$ -	$ 8,000
Replace Elec. Outlets with Safety	250	EA	$ 21	$ 5,250	$ 15	$ 3,750	$ -	$ 9,000
Add Doors to to 4North West Corri	1	Set	$ 4,000	$ 4,000	$ 2,500	$ 2,500	$ -	$ 6,500
19" TV	18	EA	$ 350	$ 6,300	$ 50	$ 900	$ -	$ 7,200
VCR	18	EA	$ 330	$ 5,940	$ 50	$ 900	$ -	$ 6,840
TV Bracket	18	EA	$ 230	$ 4,140	$ 50	$ 900	$ -	$ 5,040
Cable TV Drops	18	EA	$ 50	$ 900	$ 250	$ 4,500	$ -	$ 5,400
Prep Walls for TV Bracket	18	EA	$ 50	$ 900	$ 250	$ 4,500		$ 5,400
Repair and Paint Door Frames	17	EA	$ 25	$ 425	$ 100	$ 1,700		$ 2,125
Remove Furniture From 4 North	20	Room	$ 25	$ 500	$ 300	$ 6,000		$ 6,500
Infant Security System	1	LS		$ -		$ -	$ 72,000	$ 72,000
CCTV System	1	EA		$ -		$ -	$ 11,000	$ 11,000
Patient Monitoring and Telemetry	1	LS		$ -		$ -	$ 25,000	$ 25,000
Recommission Med Gas System 4 Nor	1	LS	$ 250	$ 250	$ 500	$ 500	$ 2,500	$ 3,250
OB TRACE	1	LS		$ -		$ -	$204,000	$ 204,000
Install Furniture in New Admin. A	60	ork Sta	$ 25	$ 1,500	$ 300	$ 18,000		$ 19,500
Computer Drops	60	EA	$ 50	$ 3,000	$ 250	$ 15,000		$ 18,000
Phone Jacks	60	EA	$ 50	$ 3,000	$ 250	$ 15,000		$ 18,000
SUBTOTAL				$ 217,405		$218,100	$314,500	$ 750,005
6% TAX-M/E, 25%PAYROLL B-L				$ 13,044		$ 54,525	$ -	$ 67,569
SUBTOTAL				$ 230,449		$272,625	$ 314,500	$ 817,574
15% OVERHEAD				$ 34,567		$ 40,894	$ 47,175	$ 122,636
SUBTOTAL				$ 265,017		$313,519	$ 361,675	$ 940,210
10% PROFIT				$ 26,502		$ 31,352	$ 36,168	$ 94,021
SUBTOTAL				$ 291,518		$344,871	$ 397,843	$1,034,231
1.8% BOND				$ 5,247		$ 6,208	$ 7,161	$ 18,616
TOTAL				$ 296,766		$351,078	$ 405,004	$1,052,848

(WAMC, Directorate of Business Operations, 2002)

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